



OT5037 CERTIFICATE IN SUSTAINABLE PRACTICE (LEVEL 5)

Centre for Sustainable Practice

Programme Document

Version 1 – December 2009

Version 1a – April 2010

OTAGO POLYTECHNIC[2010]

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SUMMARY INFORMATION

Title: Certificate in Sustainable Practice (Level 5)

Abbreviated Title: CertSustPrac (L5)

Level: 5

Credits: 60

This is a one semester programme can be delivered full-time and/or part time.

The programme will be delivered for the first time in 2010. It will have a major review in 2015.

Business Unit Number (BUN) is 11714.

Approvals Database Application Number is 11714.00

This programme is a new programme.

DOCUMENT CONTROL INFORMATION

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Version Control – electronic

Version Number	Approvals Database Number	Academic Board Course Number	Date Approved	New Programme or Category of change	Summary of Changes, including section numbers	Person Responsible for changes to document
1	11714.00	A192/09	9 Dec 2009	New programme		Steve Henry/ Glenice Mayo
1a	11714.02	A58/10	21 Apr 2010	1	Add SD510001 Social Media Technology in Business to Elective Courses	Anna James

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1. RATIONALE and BACKGROUND

The Centre for Sustainable Practice began in Central Otago in 2006 when stakeholders gathered for a meeting to determine how the polytechnic could meet the needs of the communities. The answer from business, local government and non governmental organizations was a desire to facilitate more sustainable communities through sustainable business practices.

Since then the Centre has established programmes in Sustainable business, research and has developed short courses. To date the main focus has been fee for service consultancy and training.

This new certificate level qualification is proposed because of an increasing desire by stakeholders of the Centre for Sustainable Practice for more formal qualifications. The Centre has 600 stakeholders on its database now and is operating throughout New Zealand and soon to be internationally.

Education for sustainable development is viewed as "a process rather than an end product" (Ministry for the Environment briefing courses 2000). This view is grounded in the concepts that underpin social change (a shift in thinking and practice). The process recognises the need to draw together interdisciplinary knowledge and skills in a holistic manner, or "big picture frame", to gain a full understanding of the implications of our practice. Current global trends, issues and research indicate that human activity has had a considerable impact on global resources. Education for sustainable practice examines how we might do business of a different kind, share and conserve resources, focus on the future and connect our understanding across disciplines, settings and cultural identity.

1.1 Sustainable Practices

Otago Polytechnic is embedding sustainable practice into every qualification as a part of its strategic goal to be a sustainable organisation in all activity. This programme is different in that it focuses on sustainable practices in their own right.

Sustainable practices are the foundation for programme design, programme philosophy, graduate profile, delivery methodologies and assessment practices. This qualification will model best practice by developing collaborative partnerships to increase action capability and cognitive capability through experiential learning. The programme will model sustainable practice by enabling students to minimise travel costs by studying from a distance, minimal use of course resources, and utilising collaborative engagement and sharing of knowledge.

1.2 Internationalisation

Sustainability is a global issue, and therefore all courses will consider the earth as an ecosystem, and human impact on it. The programme draws upon both international and national resources and case studies. International case studies are critical because many overseas countries are ahead of NZ in responding to sustainable practice. Students will gain a global perspective on sustainable practice, and learn from best practice around the world. All courses will include reference to both national and international examples of best practice and provide the basis for student research with a global reach. The design for flexible delivery enables web access for distance learning for both domestic and overseas students.

1.3 Engaging with Experienced Learners

This qualification allows full time or part time study and will be delivered flexibly. It is envisaged someone in full or part time work or study could complete this qualification concurrently. This has been successful in Germany where students completing a three year

degree programme have the option to complete a certificate qualification in sustainable practice concurrently or at the end of their programme of study as a block programme. There are rules around concurrent study, where the certificate sits alongside an existing full time course of study.

1.4 Engaging with Foundation Learners

The programme has open entry. It is unlikely to attract Foundations Learners, as it is intended for professional people or current students who wish to add sustainable practice into their area of expertise. The programme will use experiential learning and online resources which will minimise the impact of literacy gaps.

1.5 Flexible/Blended Learning and Teaching Strategies

The programme will be flexible with the option of face to face courses or a mix of block courses and online follow up through to being fully online courses.

The programme is designed to enable students to complete it full time or part time, alongside another qualification or workplace activity.

The teaching strategies used in this programme have been discussed with EDC staff and researchers over a two year period, with a range of staff including Terry Marler, Leigh Blackall, Anna Hughes and Barry Law. This includes a shift to teaching which is more student-centred, experiential, and where staff facilitate guide and mentor learners to help them build on their experience.

The delivery methods for this programme have been developed to enable learners to develop a deep understanding of sustainable practice. This will require them to collaborate across traditional learning boundaries (eg by vocational sector). . It will also require learners to think and act in a systems context, using a holistic framework to address context and detail.

Therefore a great deal of focus will be placed on delivery methods that enable learners to collaborate and engage with people working in other contexts. This will include the use of discussion boards, blogs and/or wikis and online conferencing.

2. PROGRAMME AIM and OUTCOMES

2.1 Aim

The programme is designed for students who wish to explore an integrated and systems thinking approach to sustainable practice. The course will provide opportunity for students from different backgrounds and workplace settings to identify the social, economic, political and environmental implications that underpin sustainability, citizenship and enterprise.

The programme will also identify the need for a shift in thinking and practice to meet the broad objectives that underpin sustainability. It will focus on global change, trends and issues, social responsibility, big picture thinking and the need for future focused leadership.

The programme will offer specialities, initially in business, land management, construction and community development, with more to be added over time.

2.2 Programme Outcomes

By the end of this programme students will be able to:

- Analyse the need for, and identify the tipping points to achieve sustainable practice
- Understand the change requirements to achieve Sustainable Practice and be able to critique national and international examples
- Assess the behaviour of a sustainable practitioner in their chosen context and develop a plan to improve their own practice

2.3 Outcome Statement

[for use in STEO, NZ Register of Quality Assured Qualifications and other]

Graduates will be able to step towards sustainable practice in their industry, personal lives, individual businesses and communities.

Graduates will understand the trends, impacts and opportunities for sustainable practice and be able to apply these in their chosen context.

3. GRADUATE PROFILE

The programme will enable students to:

- Articulate the opportunities and limitations of implementing sustainable practice in their vocational setting.
- Apply learning leadership in workplace environments. Recognise, adopt and where necessary, instil in others in their workplace effective practices that do not cause harm to nature and support sustainable community values.
- Think and act competently as a sustainable practitioner in their vocational setting. This means viewing the vocation through a lens of economic, social, environmental and political activity.
- Critically reflect on current practice, explore current trends and work towards mapping future ways of working that model sustainable practice.
- Build supportive and collaborative partnerships with communities that are directly connected to their workplace.
- Break new ground by being creative and innovative in the way they approach sustainable practice.

4. PROGRAMME DESIGN

4.1 Title of the Programme

The title of the programme is appropriate.

Title: **Certificate in Sustainable Practice (Level 5)**

Abbreviation: **CertSustPrac (L5)**

This is a one semester full time programme, which is likely to be studied on a part-time basis. Some Block Course attendance will be required.

4.2 Relationship with Treaty of Waitangi/ Engagement with Kai Tahu

The concept of sustainable practice in New Zealand recognises the special relationship of the Crown with Maori through the treaty of Waitangi and therefore the notions of hauora (total wellbeing and balance with nature), rahui tapu (conservation) and kaitiakitanga (guardianship).

These notions underpin sustainable practice in Aotearoa NZ and embedding them in the core courses of the qualification is fundamental. Consultation for achieving this includes ongoing dialogue with the office of Kaitohutohu, through Khyla Russel and Justine Camp in the development of the core course content to embed hauora, rahui tapu, and kaitiakitanga.

4.3 Learning and Teaching Strategies

Overview:

This programme is grounded in experiential learning, cooperative learning and inquiry. Students will develop their ability to be competent in sustainable practice through a range of learning activities.

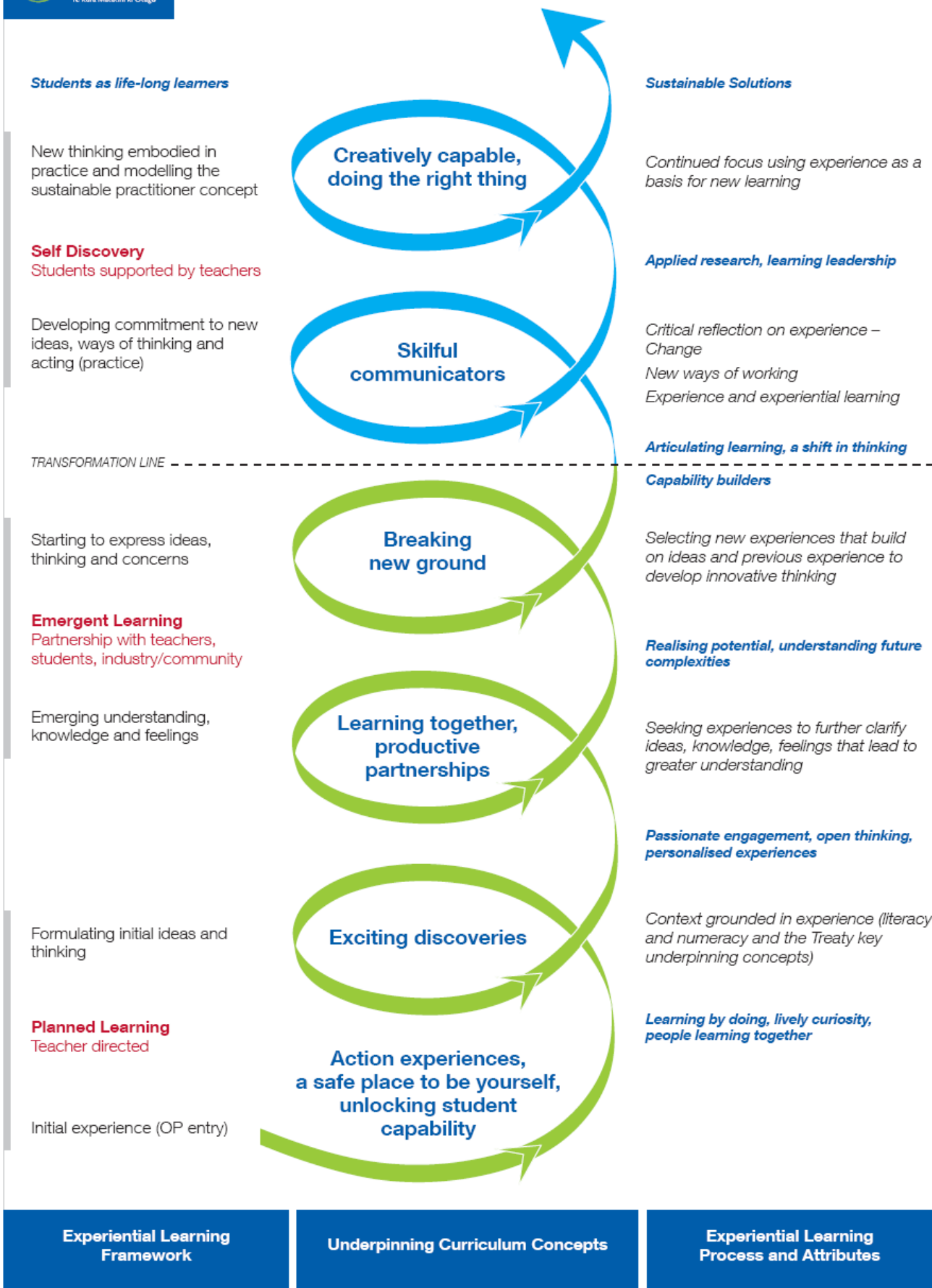
In order to facilitate this development, a range of teaching and learning strategies will be used including directed learning, self directed learning, e learning and practical skills training. Analysis and interpretation of case studies and application of learning will be used to link knowledge to practice. Workshops, forums and presentations will be used.

Delivery will be flexible with part time and full time options. There will be block courses with online follow up. It will be possible to complete a fully online version in the future.

The learning and teaching strategies to be used within this programme are summarised by the following illustration.



Inspiring Capability



4.4 Assessment Philosophy, Rationale and Strategy

Assessment rationale and methodology are clearly stated.

Assessment at Otago Polytechnic is based on the following:

- Assessment will be fair and transparent and not disadvantage any individual or group in the programme.
- Assessment provides the learner with an opportunity to get feedback on their learning – both formative feedback and summative feedback. It measures student learning against the stated outcomes for each course and is an integral part of the teaching and learning process.
- **Formative Assessment** will provide students with feedback to enhance the learning process. **Summative Assessment** will provide students with a final assessment of the course outcomes.

Formative assessment is used extensively to assist students to enhance their skills. It is particularly appropriate in this programme as students seek to improve their personal decision making skills in analysing and interpreting a wide range of information in this programme will include self, peer and by tutors.

Summative assessment will be competency based. Assessment will be applied wherever possible to the learner's context.

4.5 Structure of the Programme

The structure of the programme is appropriate to the aim, content and learner needs.

The compulsory and elective combination of components is consistent with the aim of the programme.

The combination of components makes a coherent programme.

4.1. Programme Structure

This 60 credit programme is made up of 50% core compulsory courses and 50% optional courses. All students will complete two compulsory courses of core knowledge about sustainability, in order to develop a strong generic understanding of the local, national and global issues involved,. The two compulsory courses are – Why Sustainable Practice? and How to Achieve Sustainable Practice.

Students will also choose 30 credits of optional courses related to the context in which they wish to develop their sustainable practice. Students will identify appropriate courses to meet their needs from the wide range of optional courses. Specialty areas will be available in; community development, tourism, construction, design, and land management.

Additional specialties and optional courses will be developed in response to student demand. This will include cultural perspectives, opportunities for practicing teacher and specific courses for local govt.

Optional courses

Title	Level	Specialty	Credits
Sustainable practice in business	5	Business	15
The Benefits of Green Building	5	Construction	15
Social Media Technology in business	6	Business	15
Sustainable Land Use	5	Land management	15
Sustainable production and organic certification	5	Land management	5
Environmental Design	6	Design	15
Sustainable Winegrowing and Organic Certification	5	Land management	5
Special Topic for Sustainable Practice	5	All	15

4.2. Programme Sequencing and Progression

Students are encouraged to complete the core courses before completing the optional course. , However this is not a requirement but students who are enrolled in the special topic must complete at least one of the core courses before commencing studying the special topic. Optional/elective courses may be completed prior to the compulsory core.

4.3. Alignment with OP Strategic Priorities

Core Capabilities Framework

The purpose of the framework is to inspire, develop and create students who behave in competent, skilful and effective ways. The aim is that all graduates are expected to demonstrate capability that is consistent with the level of the qualification achieved.

- Specific contexts in which the core competencies are located at programme level are articulated below;
- The content for core competencies will be identifiable within the course outlines and curriculum documents;
- How the core competencies will be assessed is described in the course outlines and curriculum documents.

Literacy <i>Aim: Is able to listen and read with understanding and is able to communicate effectively both verbally and in writing.</i>	Graduates will present material verbally and in writing during the programme and be supported to become more literate in articulating sustainable practice
Numeracy <i>Aim: Is able to use mathematical and numerical knowledge to meet the demands of study and work.</i>	Graduates will demonstrate numeracy to an appropriate level in their vocational context
Creative Thinking <i>Aim: Is able to analyse, evaluate and make informed judgement in study and work practice.</i> <i>Is able to think creatively in relation to study and work practice.</i>	Graduates will be able to evaluate and analyse alternative strategies for sustainable practice. They will be able to develop solutions appropriate to particular situations and different contexts including creating new solutions.
Problem Solving	Graduates will experience success in problem solving

<i>Aim: Is able to identify and analyse problems and develop solutions to them.</i>	for sustainable practice
Information Access <i>Aim: Is able to research, access and analyse information from a variety of sources (including current information sources, repositories and modes).</i>	Graduates will be able to access information relevant to their vocational context and present this material to others
Ethically and Socially Responsible <i>Aim: Has an awareness of ethical standards and responsible practice which apply to their industry or profession and can demonstrate the importance of working within them.</i>	Students will be able to demonstrate an understanding of the impact of Sustainable Practice on the environment. They will be able to develop solutions which meet their local social and ethical responsibilities including legal obligations where required
Autonomous Learning <i>Aim: Is able to develop as a learner and take responsibility for own learning.</i>	Graduates will be able to reflect on their own practices and develop strategies to implement more sustainable practice. They will develop this through case studies and application of learning to their own context
Operating in Teams <i>Contributes to and functions effectively within work teams, leading by example.</i>	Students will experience learning that models best practice in co-operation and collaboration
Safe Practices <i>Aim: Is able to demonstrate safe working practices and operates safely within the working environment</i>	Graduates will learn how to manage safe working practices in implementing more sustainable practice
Sustainable Practice <i>Aim: Has an awareness of sustainability issues that incorporates sustainable practice</i>	This is the focus of the programme
Treaty of Waitangi <i>Aim: Has a level of understanding as an individual and collectively under the requirements of the MoU with kā Papatipu Rūnaka Ki Ara-te-Uru</i>	Graduates will be able to understand hauora (total wellbeing and balance with nature), rahui tapu (conservation) and kaitiakitanga (guardianship).
Personal Effectiveness <i>Aim: Leading Others (is able to lead small teams of others); Future Focused (understands the need for skills that equip the individual for future developments); Adaptable to Change (is aware of current developments and adapts and responds to change); Goal setting (is able to set personal goals); Time management (self manages time to meet goals).</i>	Students will have identified ways to adapt their practice and continue improving in the future. The focus on strategic planning and systems thinking will enable them to broaden their view of their effectiveness and sphere of influence

4.6 Research

Students will be given the opportunity to access articles in journals, newsletters and other publications and encouraged to access the web for their projects, presentations and assignments.

4.7 Variations to OP Expectations

This level 5 certificate programme will follow the Otago Polytechnic expectations. Currently there are no other similar qualifications being delivered in New Zealand. This development work aligns to the strategic platform of Sustainable Practice education as a point of difference for the institution.

4.8 Occupational Safety and Health

Programme Specific Risks Including Physical and Emotional Risks

There are no specific risks related to the programme. Where optional courses contain specific risks, students will be made aware of these prior to commencement of the relevant course.

Students will be made aware of the health and safety issues and expectations of any site visit/placement.

Risk Management Procedures

Hazards are identified before any field work and students involved in organisations are expected to have been given notice of and adhere to any policies and procedures of that organisation

4.9 Transition Arrangements

As this is a new programme, there are no transition arrangements required.

5. Programme Management

5.1 Programme Ownership

The programme is owned and managed by a clearly identified organisation.

This programme is owned and managed by Otago Polytechnic.

5.2 Off-site Practical/Work Based Components

There are arrangements for ensuring that any off-site practical/work-based components are fully integrated into the relevant programmes.

5.1. Work Based Components

Offsite work-based / practical experiences will be for students to contextualise their learning. Any work based requirements will comply with Otago Polytechnic safety requirements and requirements for contracts with employers and the approval of sites.

Workplace sites are approved as suitable for the programme by using workplace selection criteria. These are;

- A willingness to engage in a project in sustainable practice, approved by the most senior manager or owner.
- Ability to provide suitable supervision of the student if they are not an employee
- Appropriate Health and Safety policies to ensure student safety
- A willingness by the organisation to acknowledge the work completed on student placement was carried out in partnership with Otago Polytechnic

The evaluation of the workplace site is undertaken by the staff member in charge of the programme.

6. PROGRAMME REGULATIONS

6.1 Length of the Programme

The length of the programme is clearly defined and appropriate.

One semester full-time – 17 teaching weeks, 2 holiday weeks, gross weeks 19 per year.

Typical weekly directed learning hours:

Maximum/minimum timeframes for completion of programme:

6.2 Variations to Otago Polytechnic expectations

Entry requirements	n/a
Selection Process	n/a
Provisional Entry	NO Variation:
Enquiries, Applications, Category	n/a
Grade Table	J:GNQF
Assessment	n/a

Assessment in Te Reo	n/a
Recognition of Prior Learning	n/a
Feedback to Students	n/a
Unspecified Credit	n/a
Reassessments/Resits	n/a
Resubmissions	n/a
Attendance Requirements	n/a
Progression	n/a
Specials	n/a
Awarding Merit and Distinction	n/a
Programme completion	n/a
Certification	n/a
Award Annotation	n/a
Award Specification	n/a
Student Results	n/a

6.3 Advanced Standing

Advanced standing does not apply in this programme as it is a 60 credit qualification.

Advanced standing applies to Otago Polytechnic qualifications/programmes where an RPL applicant has been assessed for courses, qualifications and/or an APEL process in which the outcomes equate to at least 60 credits towards an Otago Polytechnic qualification and enables a student to enter the programme at an advanced level.

6.4 Certification

The title and nomenclature of the programme accord with NZQA's interpretation.

6.1. Awards

To be awarded the **Certificate in Sustainable Practice (Level 5)**, students must successfully complete 60 credits, including all compulsory courses, as detailed below;

SUMMARY OF CREDITS CERTIFICATE IN SUSTAINABLE PRACTICE (LEVEL 5)		
	<i>OP Credit</i>	<i>Total Credit</i>
Level 3	0-20	0-20
Level 4	0-20	0-20
Level 5	40-60	40-60
Level 6	0-20	0-20
Level 7	0-20	0-20
TOTAL	60	60

7. Local Course Outlines

7.1 Why Sustainable Practice?

SMS Code	SD501001	Directed Learning hours	50
Level	5	Workplace or Practical Learning hours	nil
Credits	15	Self Directed Learning hours	100
Prerequisites	None	Total Learning Hours	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme: No			
Name of other Programme: na			

Aims

To provide the background as to how and why human activity is currently unsustainable.

Learning Outcomes

At the successful completion of this unit students will be able to:

1. Analyse the ecological processes that support life systems and human impacts on these.
2. Critically evaluate the relationship between human activity and nature.
3. Analyse the tippingpoint issues that have influenced thinking about sustainability
4. Analyse trends, issues and opportunities that will influence future activity and generations on this planet

Indicative Content

- Economic, social, cultural and political aspects of human relationship with nature
- Hauora (total wellbeing and balance with nature), rahui tapu (conservation) and kaitiakitanga (guardianship).
- Ecology
- Sustainable development
- Systems thinking

Change process

Assessment

Assessment Activity	Weighting	Learning Outcomes
Assignment	50%	1, 2, 3
Learning Journal	50%	1, 2, 3

Note: Literacy and/or numeracy assessed within current assessment tasks are mapped against Learning Progressions.

Resources

Required:

Online where resources are accessed. Articles, u tube media, case study websites

7.2 How to achieve Sustainable Practice

SMS Code	SD502001	Directed Learning hours	50
Level	5	Workplace or Practical Learning hours	50
Credits	15	Self Directed Learning hours	50
Prerequisites	None	Total Learning Hours	150
NQF Unit standards assessed in this course: none			
This course approved in another Programme: No			
Name of other Programme: n/a			

Aims

To understand the mechanisms and action competence skills that are required to implement sustainable practice

Learning Outcomes

1. Compare and contrast the ways sustainable practice can be implemented.
2. Understand the collaborative and co-operative behaviour required to implement sustainable practice.
3. Evaluation of local, national and international best practice towards sustainable practice.
4. Understand the range of knowledge and skills required to implement effective action for sustainable practice

Indicative Content

- Importance of collaborative approaches in implementation of sustainable practice
- Frameworks for sustainable practice success occurring locally, nationally and internationally
- Legislative approaches and frameworks
- Leadership in sustainable practice
- Action capability and action competence

Assessment

Assessment Activity	Weighting	Learning Outcomes
Project	100%	1,2,3

Note: Literacy and/or numeracy assessed within current assessment tasks are mapped against Learning Progressions.

Resources

Required:

Online where resources are accessed. Articles, u tube media, case study websites

7.3 Sustainable Practice in Business

SMS Code	SD503001		
Level	5	Credits	15
Total Learning Hours	150	Directed Learning hours	60
Workplace or Practical Learning hours	0	Self Directed Learning hours	90
Prerequisite: none			
Course approved in another Programme: Yes - Diploma in Applied Tourism and Travel – Sustainable Practice 2.			

Aims

To identify and analyse existing sustainable methods and processes used in industry, and to develop and introduce a change plan to improve current practice

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Identify and analyse existing practices of sustainability within an industry.
2. Use a systems approach to introduce changes to methods and processes operating for the sustainability of a business within a chosen context.
3. Use a range of tools to gather data, identify issues, set priorities and implement change

Content

- Examination and evaluation of case studies outlining the concepts and methods involved in sustainable practice for a business within a chosen context.
- Analysis of case studies in sustainable practice.
- Methods, techniques and skills required to implement changes to businesses to address sustainable practice.

Learning/Teaching Strategies/Methods

Lecture series, field trips, practical workshops, project work, presentations, videos

Assessment

Assessment	Weighting	Learning Outcomes
Case study	80%	1, 2
Presentation	20%	1, 2

Completion requirements

Successful completion of all assessments.

Student Reading List

Course web logs, on-line library

7.4 The Benefits of Green Building

SMS Code	SD504001	Directed Learning hours	50
Level	5	Workplace or Practical Learning hours	50
Credits	15	Self Directed Learning hours	50
Prerequisites		Total Learning Hours	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme: No			
Name of other Programme: n/a			

Aims

To articulate the benefits of green buildings.

Learning Outcomes

1. Understand integrated design as a key tenant of sustainable practice in construction
2. Articulate the benefits of integrated sustainable design in a building project

Indicative Content

- Sustainable design in buildings
- Integrated design processes
- Case studies of sustainable buildings in NZ and Internationally
- Cost benefit analysis of buildings
- Articulating the benefits of sustainable design

Assessment

Assessment Activity	Weighting	Learning Outcomes
Building project assignment	70%	1, 2
Oral Presentation	30%	1, 2

Note: Literacy and/or numeracy assessed within current assessment tasks are mapped against Learning Progressions.

Resources

Required:

Online where resources are accessed. Articles, u tube media, case study websites

7.5 Sustainable Land Use

SMS Code	SD505001	Directed Learning hours	50
Level	5	Workplace or Practical Learning hours	50
Credits	15	Self Directed Learning hours	50
Prerequisites	None	Total Learning Hours	150
NQF Unit standards assessed in this course: No			
This course approved in another Programme: No			
Name of other Programme: n/a			

Aims

To understand how land can be used indefinitely or sustainably

Learning Outcomes

At the successful completion of this unit students will be able to:

1. Know what sustainable land use is from an economic, social, environmental and political perspective.
2. Understand the ecological processes that support land systems.
3. Analyse a piece of land for its capacity to be sustainably used.

Indicative Content

- Ecology
- Soils
- Water
- Sustainable production techniques
- People relationships to land

Assessment

Assessment Activity	Weighting	Learning Outcomes
Assignment Land analysis	100%	1, 2, 3

Note: Literacy and/or numeracy assessed within current assessment tasks are mapped against Learning Progressions.

Resources

Required:

Online where resources are accessed. Articles, u tube media, case study websites

7.6 Sustainable Production and Organic Certification

SMS Code	SD506001		
Level	5	Credits	5
Total Hours	50	Contact Hours	15
Work Experience Hours	0	Self Directed Hours	35
NQF Units/Other Components contained are: N/A			
Course approved in another Programme: Yes			
Name of Programme: Diploma in Horticulture (Level 5) Qualification Code: OT4890			

Aims

To provide students with the knowledge required for sustainable production and by organic certifying bodies for 'organic' status.

Learning Outcomes

At the successful completion of this course, students will be able to:

- Define the organisations responsible for sustainable production and organic certification.
- Describe the requirements of the certifying bodies to comply with sustainable production requirements and to gain the various levels of organic status.
- Describe the implications of non-compliance in terms of actions by the certifying authority.
- List the main risk areas that could affect a grower's sustainable production and organic status and the methods used to minimise or eliminate these risks.

Content

- Sustainable practices.
- Requirements to achieve sustainable production standards for various horticulture organisations.
- Organic certifying agencies.
- Organic requirements for certification by various certifying bodies.
- Annual reporting requirements.
- Organic standards, New Zealand and international.
- Risk management for organic growers.

Learning/Teaching Strategies/Methods

Lectures, tutorials, class workshops, field trips, guest speakers, self directed study.

Assessment

Assignment.

Attendance Requirements

Attendance is not compulsory. Students are responsible for ensuring they attend the course sufficiently to be able to meet the completion requirements.

Completion requirements

Competency achieved in assessment materials.

Student Reading List

Support notes as provided.

Bio Gro certification manual.

Rombough, L. (2002). *The grape grower : a guide to organic viticulture*. White River Junction, Vt.: Chelsea Green.

Sustainable and best practices information from various grower organisations.

7.7 Sustainable Winegrowing and Organic Certification

<i>SMS Code</i>	SD507001		
<i>Level</i>	5	<i>Credits</i>	5
<i>Total Hours</i>	50	<i>Contact Hours</i>	15
<i>Work Experience Hours</i>	0	<i>Self Directed Hours</i>	35
<i>NQF Units/Other Components contained are:</i> N/A			
<i>Course approved in another Programme</i> Yes			
<i>Name of Programme:</i> Diploma in Viticulture (Level 5)		<i>Qualification Code:</i> OT4895	

Aims

To provide students with the knowledge required by Sustainable Winegrowing New Zealand (SWNZ) and organic certifying bodies for accredited sustainable winegrowing and 'organic' status respectively.

Learning Outcomes

At the successful completion of this course, students will be able to:

- Define the organisations responsible for sustainable winegrowing and organic certification.
- Describe the requirements of the certifying bodies to gain accredited sustainable winegrowing status and the various levels of organic status.
- Describe the implications of non-compliance in terms of actions by the certifying authority.
- List the main risk areas that could affect a grower's sustainable winegrowing and organic status and the methods used to minimise or eliminate these risks.

Content

- Sustainable practices.
- Requirements to become an accredited SWNZ vineyard.
- Sustainable Winegrowing New Zealand.
- Organic certifying agencies.
- Organic requirements for certification by various certifying bodies.
- Annual reporting requirements.
- Organic standards, New Zealand and international.
- Risk management for organic growers.

Learning/Teaching Strategies/Methods

Lectures, tutorials, class workshops, field trips, guest speakers, self directed study.

Assessment

Assignment.

Attendance Requirements

Attendance is not compulsory. Students are responsible for ensuring they attend the course sufficiently to be able to meet the completion requirements.

Completion requirements

Competency achieved in assessment materials.

Student Reading List

Support notes as provided.

Bio Gro certification manual.

Rombough, L. (2002). *The grape grower : a guide to organic viticulture*. White River Junction, Vt.: Chelsea Green.

Sustainable Winegrowing New Zealand manual.

Sustainable Winegrowing New Zealand scorecard.

7.8 Environmental Design

SMS Code	SD508001	Directed Learning hours	48
Level	6	Workplace or Practical Learning hours	n/a
Credits	15	Self Directed Learning hours	102
Prerequisites		Total Learning Hours	150
NQF Unit standards assessed in this course: n/a			
This course approved in another Programme Yes Bachelor In Design (Speciality)			

Aims

To provide students with the opportunity to explore or further experience techniques, skills, knowledge and competence in areas that may differ from their specific discipline. In this course students are able to develop a sound basis for further research and a personal response to the diverse area of environmental design.

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Demonstrate knowledge and understanding of environmental issues as they pertain to design and the designer.
2. Demonstrate ability in understanding environmental issues in design, by proposing alternative responses, processes or solutions to a new design.
3. Demonstrate a good level of safety and sound sustainable practices when working with materials and equipment.
4. Show analysis, reformatting and evaluation of abstract data and concepts that relate to the subject.

Indicative Content

- Environmental issues and considerations in design
- Scope of environment
- Ecology
- Environmental effects
- Designer responsibility
- Manufacture issues
- Sustainability.

Assessment

Assessment Activity	Weighting	Learning Outcomes
Project	100%	1 - 4

Resources

Recommended:

McDonough, W. & Braungart, M. (2002). *Cradle to cradle: remaking the way we make things*.

Tischner, U. & Charter, M.(2001). *Sustainable solutions: developing products and services for the future*. Sheffield: Greenleaf.

7.9 Special Topic for Sustainable Practice

SMS Code	SD509001	Directed Learning hours	15
Level	5	Workplace or Practical Learning hours	0
Credits	15	Self Directed Learning hours	135
Prerequisites	None	Total Learning Hours	150
NQF Unit standards assessed in this course: no			
This course approved in another Programme No			
Name of other Programme:			

Aims

To enable students to pursue an individual course of study which will focus on a particular aspect of sustainable practice.

Learning Outcomes

At the successful completion of the course students will be able to

- Identify a special topic and rationale for that topic.
- Manage self directed learning.
- Demonstrate competence, creativity, professionalism, ethical awareness and the ability to apply new ideas and understanding.
- Meet outcomes relevant to area of study.

Indicative Content

For permission to undertake this course, students must submit a written proposal outlining the aims and objectives of their study to the programme manager. A staff member will be nominated to supervise the student. Specific content to meet the outcomes will be agreed by the lecturer and the student.

The process may include:

Producing a proposal for a special topic

- Purpose and scope of the special topic identified
- Techniques and methodology identified
- Ethical considerations addressed
- Assessment plan developed
- Supervision planned

Carrying out the special topic work

- Work log/progress record compiled
- Problems identified and addressed
- Progress reviewed
- Supervision accessed
- Assessment material/report submitted

Assessment

Assessment will be based on stated outcomes. The assessment may include written work and oral presentation. Assessment will be negotiated with students and clearly stated in a written contract.

7.10 Social Media Technology in Business

SMS Code	SD510001	Directed Learning hours	50
Level	5	Workplace or Practical Learning hours	50
Credits	15	Self Directed Learning hours	50
Prerequisites	None	Total Learning Hours	150
This course approved in another Programme Yes / No			
Name of other Programme: na			

Aims

To apply social media technologies to a sustainable business setting.

Learning Outcomes

At the successful completion of this course, students will be able to:

1. Develop literacy in social media technologies.
2. Develop literacy in social media application through collaboration.
3. Analyse and articulate the value proposition for social media technologies in sustainable business
4. Apply social media technologies to a organisational context and evaluate its success

Indicative Content

- Social media technology hardware- Personal computer, iphone, blackberry, lap top
- Social media technology communities- facebook, twitter, blogs, u tube
- Case studies of success in business using these technologies

Assessment

Assessment Activity	Weighting	Learning Outcomes
Project	100%	1,2,3,4,

Resources

Required:

Online articles, u tube media, case study websites
Online communities of facebook, Twitter, U tube,

8. Appendices

<i>Appendix 1</i>	Initial Scoping Course
<i>Appendix 2</i>	Otago Polytechnic Expectations for Certificate programmes
<i>Appendix 3</i>	Resource Verification
<i>Appendix 4</i>	Stakeholder Support
<i>Appendix 5</i>	Consultation Log
<i>Appendix 6</i>	Sample Certificate (only if variation)

8.1 Appendix 1: Initial Scoping Course

Academic Board Course

DATE: 14 NOVEMBER 2007

<i>Item:</i>	New Programme - Approval to Develop
<i>Unique Identifier:</i>	Approvals Database Application number 11714.00 BUN 11714
<i>Proposed Programme Title:</i>	Certificate in Strategic leadership toward sustainability in Local Government
<i>Programme Code:</i>	OT5037
<i>Proposed EFTS Value/Level/Credits:</i>	0.5/ level 6 /60 credits
<i>Proposed Start Date:</i>	April 2008
<i>Source(s) of Funding:</i>	self-funded
<i>Access to Student Allowances will be required:</i>	NO – Part time students, with businesses paying for them to do the course
<i>Access to Student Loans will be required:</i>	NO– Part time students, with businesses paying for them to do the course
<i>Approved by Leadership Team</i>	YES
<i>Financial Viability Approval – current status</i>	Not yet approved by Philip Cullen
<i>Market Viability and Stakeholder Input – current status</i>	Not yet signed off by Mike Waddell

Rationale:

This programme is for people involved in local government management, and governance in New Zealand.

Local government hold much responsibility in delivering sustainable outcomes for communities. As this is a new imperative for local government, many are struggling with what it means for their planning processes and operations, thus creating a need for training in strategic sustainable development.

Relationship with Any Other Programmes/Qualifications (including TANZ partners):

This programme is the first of a series of planned programmes titled “Strategic Sustainable development in.....” Other sectors being considered include tourism and business.

No other ITP provides programmes in sustainability.

Graduate Profile:

By the end of the course, successful students will be able to take an active or leadership role in applying strategic sustainable development in their own organizations. More specifically, they will be able to:

1. Describe the major components of a Framework for sustainable practice and its use in planning and decision-making, including its scientific foundations, the five levels of comprehension necessary for planning in complex systems, the metaphor

of the funnel, the four Sustainability Principles, backcasting from Principles of Sustainability and the ABCD process.

2. Outline the business case for sustainability, both in terms of the reduction of sustainability-related risks and of the strategic benefits enjoyed by organizations that are proactive about sustainability-related opportunities, with specific reference to the chemicals industry.
3. Outline the key sustainability challenges of local government. Relate them to the sustainability principles, and show how addressing these challenges would mark a major shift towards sustainability in the industry and society, and yield clear business benefits.
4. Describe how different sustainability tools and approaches relate to the Framework, with specific reference to tools and approaches that are relevant to the sustainable development of local government. Recognize the uses of such complementary tools and approaches in one's own work context.
5. Facilitate a process to apply the framework on issues relevant to local government and one's own organization. This would include:
 - i) identifying current unsustainable practices, ii) identifying a future sustainable state, iii) generating ideas and initiatives that are consistent with pragmatic shift towards a sustainable society, and
 - iv) prioritizing early investments in that shift.
6. Identify leadership concepts relevant to implementing strategic sustainable development in organizations in order to energize the process and overcome institutional barriers, e.g. organizational learning, "diffusion of innovations" theory, change management.
7. Integrate the knowledge gained in the course into a sound, practical business case for applying strategic sustainable development in one's own organization.

Brief Description of Content:

- Familiarising with the technology used on the course
- Introduction to frameworks for sustainable practice
- Applying the framework to local government planning and operations
- Collaborative project work on the challenges facing local government
- Facilitation of continued collaboration in an ongoing way

Teaching and Learning Strategies – including details of proposed delivery modes

This programme would be offered as a three day retreat followed by fortnightly distance delivery of seminars and discussion, supported by online discussion forums. The course concludes with a one day seminar.

Students will have support from a facilitator, and guest experts will help with specific topics. Students will use their own work experiences and examples as learning material, and develop plans for their local government body.

Summary of Informed Contribution of Stakeholders:



Previous consultancy work with Central Otago District Council has highlighted the need for training of staff and elected members. There is strong support from the NZ branch of the Swedish based The Natural Step Foundation to offer this course

Shaun Bowler from Bluefin Consulting in Auckland, who specialises in local government, is currently carrying out market research to scope the market for and required focus of the programme.

Summary of Market Information including the needs of our community:

See above

Proposal:

That Academic Board approves the development of programme documentation for OT5037 Certificate in Strategic Leadership toward Sustainability in Local Government for submission to Academic Approvals Committee.



Head of School/Programmes
CENTRAL OTAGO CAMPUS MANAGER

8.2 Appendix 2: Otago Polytechnic Expectations for Certificate Programmes – extract from High Level Expectations document

CERTIFICATE

1.1. Definition

Certificates may be used in a wide range of contexts across all levels up to and including level 7, and are often used to prepare candidates for both employment and further education and training.

National Certificates recognise skills and knowledge that meet nationally endorsed standards (unit and achievement standards). National certificates may be gained in a wide range of areas.

Whilst certificates can be used across all levels up to and including level 7, current practice has certificates from levels 1-5.

Note: Where a national certificate exists in a particular discipline area, it is expected that the national certificate would be delivered rather than a local certificate.

1.2. Title

A certificate will be named Certificate in XXX (Level X).

1.3. Credit Requirements

A certificate must comprise a minimum of 40 credits.

OP certificates current have a maximum of 120 credits (local certificates), or as per national qualification outline (national certificates)

1.4. Level

Usually levels 1-5, but can be up to level 7.

The level of a certificate is determined by beginning with the highest-level credits and counting back until a total of 40 is reached. The level at which the total of 40 is reached determines the level of the certificate.

1.5. Entry

Minimum academic entry requirements:

Open

International Students

International students must meet the minimum academic entry requirements and the English language requirements as approved in the Programme Document.

English language requirements for students from non-English speaking backgrounds

In addition to meeting the same entry criteria as those listed above, those for whom English is a second language must also meet the language requirements listed below

- Overall band score (Academic) of 5.5 IELTS, (writing score no less than 6.0 and all other bands no less than 5.0), or
- Overall band score (Academic) of 6.0 IELTS, (writing and speaking score no less than 6.0 and reading and listening bands no less than 5.5).

(The option chosen must be indicated in the approved Programme Document)

1.6. Selection Process

All applicants will be accepted up to the maximum (if there is a maximum number). Where the maximum is reached, a waitlist in date order of applications will be kept.

1.7. Course Sizes

Preferably 15 credits, but each course should be in multiples of 5, ie 5 or 10 or 15

1.8. Enquiries, Applications, Category

1

1.9. Recognition of Prior Learning (RPL)

RPL will be awarded according to Otago Polytechnic policy AP501 Recognition of Prior Learning.

All courses within the programme are available for RPL.

1.10. Advanced Standing

Advanced standing applies where an RPL applicant has been assessed for courses, qualifications and/or an APEL process in which the outcomes equate to at least 60 credits towards an Otago Polytechnic qualification.

Advanced Standing is used when, following an assessment of prior learning or qualifications equivalence, it is evident that a student can enter a programme at an advanced level.

The rules for Advanced Standing are detailed in the approved programme document.

1.11. Assessment

Assessment at Otago Polytechnic is based on the following:

- Assessment will be fair and transparent and not disadvantage any individual or group in the programme.
- Assessment provides the learner with an opportunity to get feedback on their learning – both **formative** feedback and **summative** feedback. It measures student learning against the stated learning outcomes for each course and is an integral part of the teaching and learning process.
- **Formative Assessment** will provide students with feedback to enhance the learning process. **Summative Assessment** will provide students with a final assessment of learning outcomes for the course.

The assessment method will be:

Competency based assessment (national certificates)

Competency based assessment or criterion referenced assessment (local certificates)

1.12. Assessment in Te Reo Maori

Students may request to be assessed in Te Reo Maori.

Provided written requests are received by the Programme Manager within the first week of the programme, every endeavour will be made to meet such requests.

1.13. Grade Table

J:GNQF (national certificates)

J:GNQF (competency based assessment - local certificates)
J:GCRA (criterion referenced assessment – local certificates)

1.14. Feedback to Students

Students will receive feedback on their assessment results within **five** working days of the date of assessment. Refer policy AP900 Assessment

1.15. Reassessments/Resits

Reassessments/Resits are part of a certificate programme. One reassessment/resit is permitted for any assessment and a fee of \$. may be charged for that reassessment/resit.

Conditions for Reassessment/Resit:

Reassessments/Resits will be available to students who have attended classes, completed course work requirements, and made a genuine attempt at the first assessment opportunity.

All reassessments/resits must be completed by the last day of the course/programme.

1.16. Resubmissions

Students may be requested to resubmit an assessment following a rework of part/s of the original assessment. Resubmissions are completed within a short time frame (no more than 5 working days) and must be completed within the timing of the course to which the assessment relates. A resubmission does not count as a reassessment.

1.17. Re-Enrolments

Students who do not pass a course within the required time frame are required to re-enrol should they wish to achieve that course.

Students may enrol in any course a maximum of three times.

1.18. Attendance Requirements

There are no attendance requirements to be met for the awarding of this qualification.

NOTE: International students are required to attend 80% of scheduled classes in order to meet visa requirements.

1.19. Awarding Merit and Distinction

(Refer to guidelines AcQual 211 Guidelines for Awarding Merit and Distinction)
Merit may be awarded at both course and programme level, and may also be awarded for both competency based and criterion referenced assessment.

The approved Programme Document will indicate whether merit and distinction are awarded within a programme.

Course Level: **Competency Based Assessment** - Merit criteria should be selected from the guidelines, or be identified within the approved Programme Document (students must be advised of the merit criteria to be used prior to undertaking an assessment).

Note: Unit Standard results on Otago Polytechnic Academic Transcripts may show achievement of merit, however the merit result will not be

forwarded to NZQA and will not appear on the learner's NZQA Record of Learning.

Criterion Referenced Assessment – Merit may be awarded when students achieve a course result of B+ or higher.

Qualification: Qualifications awarded **“with merit”** require students to achieve an average of B+ or higher over all courses within the last year of the qualification.
At certificate level, qualifications are not awarded “with distinction”.

1.20. Progression

There are no generic regulations regarding progression because progression applies to multi-year programmes and certificates are usually one year or less. Any certificates of greater than one year duration must indicate any progression regulations within the programme document.

1.21. Programme completion

All assessments must be completed by the final date of the programme for each year.

1.22. Certification

Students must achieve all courses to be awarded the certificate.

1.23. Award Annotation

Local awards will carry the following ITPQ annotation

“Otago Polytechnic is accredited under the provisions of the Education Act 1989 to provide this programme.”

Other annotations/logos to be included on the award are to be identified within the approved Programme Document.

National Awards will not be annotated.

1.24. Award Specification

The certificate will meet standard Otago Polytechnic specifications Refer to policy AP1000 Award Document Specifications.

1.25. Student Results

Results Notices will be sent to students at the end of each semester/end of each year/on completion of the programme, and will conform to the requirements of AP1010 Producing Results Transcripts.

An Academic Transcript will be sent to students at the completion of a programme of study. This transcript will contain course level results only and will comply with the requirements of AP1010 Producing Results Transcripts.

1.26. Programme and Course Evaluations

Programmes and courses are evaluated through the following processes:

Student evaluations:

Student evaluations occur through the standard Otago Polytechnic processes which are the First Impressions Survey undertaken at the beginning of a programme/course and the Programme Satisfaction Survey completed towards the end of the programme/course. Course evaluations are also undertaken within programmes to provide feedback on the learning and teaching process and the learning environment. Student evaluations are coordinated at polytechnic level through the Organisational Research Office with full analysis of responses being used to provide annual polytechnic reports.

Staff Evaluations:





Lecturers engage in a Performance Review process annually. This involves seeking student and colleague feedback and these are conducted through the Organisational Research Office. Feedback is collated in order to provide an overview for the teaching staff. Staff also evaluate and review their own teaching as well as the content of their courses to provide feedback to Programme Managers.

Programme Review:

Programme self-assessment and evaluation reports are prepared annually. As part of this process, feedback is sought from staff and the outcomes of student surveys are also used to inform the review.

8.3 Appendix 3: Resource Verification

Confirmation that resources are available to deliver this programme

Resource Area	Signature	Date
Library Resources This verifies that consultation has taken place with the Library Manager or delegate, and any significant issues resolved. (Programme Developer to sign off)		20/06/2010
Information Technology Resources This verifies that consultation has taken place with the Chief Information Officer or delegate and that any significant IT resource issues have been resolved. (Programme Developer to sign off)		20/06/2010
Financial Resources and Equipment This verifies that the required financial resources and relevant equipment are available for delivery of the programme as per this development. (Head of School to sign off)		20/06/2010
Flexible/Blended Delivery This verifies that flexible/blended delivery aspects have been discussed and are to be developed in consultation with the Educational Development Centre. (Programme Developer or Head of School to sign off)		20/06/2010

8.4 Appendix 4: Stakeholder Support (note this consultation was done in conjunction with a level 7 new major for the BAM to be presented in Feb 2010 to AAC)

1. Siân Taylor

BSc (Hons) BArch (Hons) ANZIA Reg Arch
Architect

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www.warrenandmahoney.com

Commercial Benefits of Green Building – This will be a good course - many of the lectures at the Green Build summit were focusing on this and the arguments for sustainability from an economic standpoint - these continually outweigh the cheaper alternative. Sustainable design is about value not cost.

Strawbale Design, Earth Building, – these are both interesting and successful forms of construction with many benefits – but I would say with a limited audience. Feel the structure of a certificate in sustainable building design needs to encompass the following suggestions – these are areas I see as being crucial to sustainable development and which can be used by anyone in any circumstance.

Passive Design – I see this as the key to sustainable design. It seems obvious but is so often done badly. It would be good for the Polytechnic to have a course on the basics of passive design, looking at International examples which ensure a building has a closed thermal envelope and high levels of insulation. All glazing areas need to be thermally broken as well as looking at passive solar gain and thermal mass. Natural ventilation will also become critically important with the earth temperatures continuing to rise and the effect this will have on the increase load to cool which will be placed on the national grid (heat pumps take a lot more energy to cool than heat). With energy prices rising and the peak oil being reached there is still no sign of New Zealand cutting down on energy use. New construction in this country is still very low end in comparison to other first world countries and could benefit from an increased knowledge of how to design passively to achieve the best results.

Building Materials- it would be good to have a course which focuses on the materials used in construction and the certification available to ensure the correct choices are being made. There are new all encompassing certification and labelling for New Zealand which are currently being developed by Branz and NZGBC. Selection of materials is an extremely important part of sustainable construction, from choosing Low VOC paints, carpets etc to choosing FSC timber or timber which has been treated with an environmentally friendly substance instead of LOSP. There are so many choices to be made when designing a building and one of the most important is the choice of materials.

Urban Design - A common theme which came up at the recent Green Building Summit was that to be truly sustainable we need not just look at the way we build but also the way settlements are being constructed. Existing planning laws do not promoting a sustainable approach to towns and cities. Mixed use, densification and bringing nature into our towns and cities is crucial to future sustainable lifestyles.

Holistic Design - All of the above should be considered, but ultimately sustainable building is a holistic approach to design and there are many more factors which need to be considered. A course on the holistic approach would be very beneficial.

Energy – Smart thinking on energy is critical to the future of western civilisation. The increase demand for energy correlates with the predicted rise in energy prices as we reach peak oil levels. There are international models where the energy crisis has already been tackled with smart thinking and government regulation.

These are just a few suggestions and themes which are currently of interest to me and that I see as vitally important to our future.

2. Rhys Taylor, National Co-ordinator Sustainable Living Programme

I might have taken some of these modules had I been offered them on arrival in NZ as a new migrant, needing to learn about the local set-up and future options. Instead I did an MSc in natural resource management at Lincoln Univ, full time 2 yrs.

3. Charlie Charters business Consultant, ex Senior manager housing NZ, Wellington

I would certainly be interested in the level 7 courses – perhaps as a graduate certificate / diploma rather than a degree major (I don't think many professionals will consider doing another degree but would top up). Indeed I completed the Open Poly grad cert in sustainable management in July - I was planning to do a diploma however I got so frustrated with the course (as did one other I know about), that it was a real struggle to keep motivated and get that far. Parts of their course are so out of date and focused on weak sustainability it is dangerous. Enough!

On your proposal there three courses that I think are missing:

- o Introduction to Sustainability – based on the BTH distance learning course perhaps
- o Environmental Economics – there is a need to understand how to build the business case
- o Sustainable Agriculture – I have been looking for a course for some time (Waikato are doing it at post-graduate level from next year and a private AUS company are becoming leaders in the field – I've attached the course schedule and plan to attend next year.). This is different to organics. Or does the 'introduction to sustainable land use' cover this.
- o Resource Management Act – not necessarily part of sustainability per se., however given that the RMA pretty much governs everything anyone wants to in terms of development - I think a module to get an understanding of the act and its requirements will be useful in the context of sustainability. Having studied it, my belief is that the act itself is very good – however the way it has been implemented by local councils and captured by various business lobby groups is generally pretty shocking.

I also think the 'Lean Service and Systems approaches to business success' would be more appealing if it were re-titled 'Lean Service and Systems approaches to business excellence'.

4. Shane Orchard Consulting Ecologist, Christchurch

Reference to Tikanga Maori and sustainable practice is a little insulting so re-title to something like Sustainable practice from a tikanga Maori perspective. There a quite a few ways to go here though, each with a different slant eg. The above suggestion basically talks to 'all' practices which is probably too broad. Sound me out if you're wanting to thrash this around further.

- There's only offering on sustainable resource management: this could be expanded such as

Sustainable coastal / marine management

Sustainable practice in land use / management

Sustainable practice in water resource management

- There could be also topics such as 'Monitoring & Evaluation for sustainable outcomes' (fits in with generics like the Governance option). The destination Management topic reminds me of the more general Spatial management theme which would be an awesome topic.. it probably lies within a policy / planning theme which also doesn't feature on the list. Other industry areas could include Fisheries & aquaculture.
- Lastly I know of no-one who has floated the 'Sustainable conservation' topic but it could well be ground breaking .if you want to make some waves :)

5. Paula Hugens Consulting Engineer GreenBeing Ltd Queenstown

If given the chance I would certainly has sought this type of qualification, I still have nothing to show that I'm a specialist in this field. It's worth noting that most of these subjects overlap. For instance land use, design and construction should be seen as one, you cannot design well if you don't understand the flow on effects for construction and vice versa. You also need to understand land-use to see the bigger picture when designing. This could be handled by cross-credits I assume.

Perhaps it would be a good idea to provide the qualifications in a manner suiting those seeking professional development such as architects, planners and engineers, prior learning could then be taken into account. New graduates are being schooled in these topics, older graduates may have forgotten unless they were around during the 70's energy crisis.

Special topics could cover, waste minimisation, building product eco labelling/LCA, energy modelling, rating tools. A lot of industry learning is already being undertaken by the NZ Green Building Council but this is hard to tap into when you are outside of the main centres.

Governance is a much more important issue for focus as there is an obvious lack of skill and fear of the subject in the business community. The Institute of Directors might be interested in hosting professional development courses on this if approached. I was already intending to approach them.

6. Jerome Partington Jasmax Auckland (NZ Largest Architectural Company)

My experience is that NZGBC and their Green Star design tools have opened up and rapidly educated the NZ construction industry to green practice which is an excellent outcome.

However due to a range of reasons, lack of prioritisation, lack of motivation, embedded relationships and the 'pick n choose' checklist style of the design tools, we are seeing green but rarely sustainable buildings. This approach is reactive, picks off the low hanging fruit, allows the players to remain in their silos and focuses on maximising or manipulating points for the lowest cost rather than focusing on delivering sustainable outcomes.

These building projects often miss easy opportunities, social and as well as economic and are not nearly as energy efficient as they could be for the same budget. I believe the construction industry in NZ will only deliver real sustainable outcomes when it has an understanding of systems thinking and applies it through the integrated design process. This is starting to be acknowledged. We need a clear and agreed understanding of sustainability in order to apply it to achieve successful outcomes.

Jerome Partington BA(Hons) Arch Dip Arch (UK)
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Re-THINKING OUR INDUSTRY

Paradigm shift Jasmax 20th October 2009

Present at NZGBC Green Building Summit briefing for Richard; RVH, JNP, NM, MdB

First cut ideas in words....feel free to volley, backhand, swing, let, net or put it over the fence!

NOW - Old paradigm	SOON - New paradigm
aesthetic driven design	system performance driven design
linear design process (pass the parcel)	integrated design process (workshop)
follow conventional design route	3 E's - everything, everyone and early
site	neighbourhood
short term ROI (2-4 years)	long term ROI (15-30 years)
Primarily economic (with some social) return	economic, social and environmental return
green building – eco efficiency	'regenerative' building (eg makes more power than it uses)
economic/ functional objective	sustainable objective
Client 'what's that? what do I want that for?	'six stars please' Mr/Ms Architect
consultants inhabiting specialist silos	Consultants- out there generalists with serious specialist skills
Accept brief	Question brief – informing client of possibilities educate by providing valuable information, models and examples
Designed to be sparkly new	Designed for reuse and disassembly with a 150 year life

Single function component Eg window = light + view	Multifunctional and added function component Eg window = thermal control + daylight penetration + tempered air + shade + glare control + solar electric power + solar thermal
single stakeholder (client)	multi stakeholder (client and society)
a composition of separate elements roof wall floor window	Integrated design – (Q? is how do we create a good wall?) can't take one component or function away without losing overall performance
Sum of parts = sum of parts	Whole is greater than sum of the parts
Communication hierarchy	Shared vision and agreed targets
Doing what we know best – Business as usual	Investment in investigation – test and build confidence in new approaches and solutions
Lower fees	Efficiency in process through clarity and shared vision leading to improved productivity and profit
Either/ or - economy vs environment	And/ both - no economy without an environment
Accept finished outcome - Do not revisit!	Monitor, evaluate, learn and improve
A coordinated design please Mr/Ms Architect	Use your vision and collaboration skills Mr/Ms Architect
KPI - on time, on budget on quality	Those KPIs plus.... carbon saved, parks created, happiness generated, volume of air cleaned, crime reduced, jobs created, water not used, trees planted, rivers filled up, cycle trips taken, solar energy captured, waste eliminated, rubbish reused, memorable design team dinners :)

7. Vaughn Crowther Rationale Ltd Infrastructure Consultants Arrowtown

Sustainable Land use - would be very useful as it drives most if not all daily decisions. I would like to do this as a standalone qual.

Maybe a combo option. Sustainable Land Use and construction. (The two are not mutually exclusive)

Are there specialist option courses you would like to see ?

Courses on sustainable economics/accounting/finance. Or true lifecycle cost analysis. Understanding the true cost of products/services within a closed system e.t.c. A necessary basis into how more sustainable accounting practices can heavily influence the free market to improve resource efficiency.

8.5 Appendix 5: Consultation Log

DATE	CONSULTATION WITH WHOM	METHOD OF CONSULTATION	FEEDBACK/POINTS RAISED	ACTION TAKEN
22/8/09	Sue Coutts Manager Wanaka Wastebusters	Meeting	The more applied the better Happy to host 5 student projects a year	Ensure practical component in design
22/8/09	Sophie Ward Manager Sustainable Wanaka Charitable Trust	Meeting	Have up to 20 projects for student placements ready to go in Wanaka now	Consider Wanaka as a venue to launch
25/9/09	Malcolm McPherson Mayor Central Otago District	Meeting	Systems thinking is a key underpinning methodology Market for course in lean service and performance excellence through international network	Develop a 15 credit course in Lena Service and Systems approaches in business as a stand alone course early
3/10/09	Clive Geddes Mayor QLDC	Meeting	Ensure Queenstown Lakes Community informed Involve Chamber of Commerce Queenstown is striving to get runs on the board as a destination of sustainable practice Very supportive of a specialist qualification like this coming into Queenstown Lakes	Meet Chamber CEO Consult businesses in Queenstown Sustainable business programme Send email questionnaire to 25 businesses in Sustainable business programme requesting opinion and interest on the Level 5 and 7 quals
18/10/09	Sustainable Business Network 14 staff	email	Their members would be interested	Ensure databases prepared to advertise programme
25/8/09	Khyla Russell	meeting	Embedding Maori perspective in core	Ensure Kai Tahu perspective in the core
17/9/09	Justine Camp	meeting	Writing Maori perspective for core	Allocation of time and resource to enable writing
25/10/09	Various consultants	email	Comments are in appendix	Comments are in appendix

8.6 Appendix 6: Sample Certificate (Variation only)

No variation required.